SURFboard® SB6190
DOCSIS 3.0 Cable Modem

User Guide

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The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.

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Safety and Regulatory Information

IMPORTANT SAFETY INSTRUCTIONS

Read This Before You Begin — When using your equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Read all of the instructions listed here and/or in the user manual before you operate this device. Give particular attention to all safety precautions. Retain the instructions for future reference.
- This device must be installed and used in strict accordance with manufacturer's instructions, as described in the user documentation that is included with the device.
- Comply with all warning and caution statements in the instructions. Observe all warning and caution symbols that are affixed to this device.
- To prevent fire or shock hazard, do not expose this device to rain or moisture. The device must not be exposed to dripping or splashing. Do not place objects filled with liquids, such as vases, on the device.
- This device was qualified under test conditions that included the use of the supplied cables between system components. To ensure regulatory and safety compliance, use only the provided power and interface cables and install them properly.
- Different types of cord sets may be used for connections to the main POWER supply circuit. Use only a main line cord that complies with all applicable device safety requirements of the country of use.
- Installation of this device must be in accordance with national wiring codes and conform to local regulations.
- Operate this device only from the type of power source indicated on the device's marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- Do not overload outlets or extension cords, as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard.
- Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords where they are attached to plugs and convenience receptacles, and examine the point where they exit from the device.
- Place this device in a location that is close enough to an electrical outlet to accommodate the length of the power cord.
- Place the device to allow for easy access when disconnecting the power cord of the device from the AC wall outlet.
- Do not connect the plug into an extension cord, receptacle, or other outlet unless the plug can be fully inserted with no part of the blades exposed.
- Place this device on a stable surface.
- Avoid damaging the device with static by touching the coaxial cable when it is attached to the earth-grounded coaxial cable-TV wall outlet.
- Always first touch the coaxial cable connector on the device when disconnecting or reconnecting the Ethernet cable from the device or user's PC.
- It is recommended that the customer install an AC surge protector in the AC outlet to which this device is connected. This is to avoid damaging the device by local lightning strikes and other electrical surges.
- Postpone installation until there is no risk of thunderstorm or lightning activity in the area.

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- Do not use this product near water: for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
- Do not cover the device or block the airflow to the device with any other objects. Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.
- Wipe the device with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the device or use forced air to remove dust.
- For added protection, unplug the device from the wall outlet and disconnect the cables to avoid damage to this device due to lightning and power surges.
- Upon completion of any service or repairs to this device, ask the service technician to perform safety checks to determine that the device is in safe operating condition.
- Do not open the device. Do not perform any servicing other than that contained in the installation and troubleshooting instructions. Refer all servicing to qualified service personnel.
- This device should not be used in an environment that exceeds 104° F (40° C).

SAVE THE ABOVE INSTRUCTIONS

Note to CATV System Installer *— This reminder is provided to call the CATV system installer's attention to Articles 820.93 and 820.100 of the National Electric Code, which provides guidelines for proper grounding and, in particular, specifies that the Coaxial cable shield shall be connected to the grounding system of the building, as close to the point of cable entry as practical.*

FCC STATEMENTS

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by ARRIS for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with the FCC RF exposure compliance requirements, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 21 cm (8 inches).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter except those already approved in this filing.

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The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destinations. The firmware setting is not accessible by the end user.

Industry Canada (IC) Statement

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

- This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-3 (B)/NMB-3 (B)

IC Radiation Exposure Statement

Important Note: *This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.*

Avis D'Industrie Canada (IC)

Cet appareil est conforme à la réglementation RSS-210 d'Industrie Canada. Son utilisation est assujettie aux deux conditions suivantes :

- Cet appareil ne doit pas causer d'interférences et
- Cet appareil doit accepter toute interférence reçue, y compris les interférences causant un fonctionnement non désiré.

DÉCLARATION DE IC SUR L'EXPOSITION AUX RAYONNEMENTS

Note Importante *: cet équipement est conforme aux limites d'exposition aux rayonnements établies par IC pour un environnement non contrôlé. Cet équipement doit être installé et utilisé de manière à maintenir une distance d'au moins 20 cm entre la source de rayonnement et votre corps.*

CARING FOR THE ENVIRONMENT BY RECYCLING

When you see this symbol on a ARRIS product, do not dispose of the product with residential or commercial waste.

Recycling Your ARRIS Equipment

Please do not dispose of this product with your residential or commercial waste. Some countries or regions, such as the European Union, have set up systems to collect and recycle electrical and electronic waste items. Contact your local authorities for information about practices established for your region.

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1 Getting Started

The ARRIS SURFboard® SB6190 DOCSIS® 3.0 Cable Modem provides high-speed access to the Internet and other online services on your home network. You can use your SB6190 to directly connect a computer to your home or small business LAN through an Ethernet connection.

This guide provides a product overview and instructions for installing and configuring your SB6190 Cable Modem to get it up and running on your home network.

In the Box

Before installing your SB6190, check that the following items are included in the box. If any items are missing, please call ARRIS Technical Support at 1-877-466-8646 for assistance.

Table 1: SB6190 Package Contents

Item		Description
SB6190 Cable Modem		High-speed DOCSIS 3.0 cable modem
Power Supply		Power adapter for an electrical wall outlet connection
Ethernet Cable		Standard Category 5e (CAT5e) or higher network cable
Software License & Regulatory Card		Safety and regulatory information, software license, and warranty for the modem

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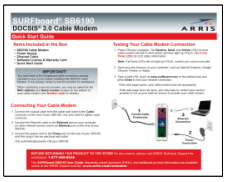
Item		Description
Support Information Card		Provides contact information for obtaining technical support assistance with any issues you may have with your SURFboard device.
SB6190 Quick Start Guide		Provides basic information for installing the cable modem and setting up your home network.

Additional Item(s) Needed (Not Included)

The following item is not included in the box and must be purchased separately:

- Coaxial (coax) cable, if one is not already connected to a cable wall outlet

System Requirements

- High-speed Internet access account
- Web browser access – Internet Explorer, Google Chrome, Firefox, or Safari
- Compatible operating systems:
  - Windows® 10
  - Windows 8
  - Windows 7 Service Pack 1 (SP1)
  - Windows Vista™ SP2 or later
  - Windows XP SP3

    Note: Microsoft no longer supports Windows XP. The SB6190 should still function without any problems.
  - Mac® 10.4 or higher
  - UNIX®
  - Linux®

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Contact Information

For technical support and additional ARRIS product information:

- Visit the ARRIS Support website: www.arris.com/consumer
- Call ARRIS Technical Support: 1-877-466-8646

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2 Product Overview

Front Panel

Figure 1 – SB6190 Front View

Table 2: SB6190 Front Panel LED Icons

LED Icon	Blinking	On (Solid)
POWER	Not applicable – icon does not blink	Green: Power is properly connected
RECEIVE	Scanning for a downstream (receive) channel connection	Green: Non-bonded downstream channel is connected Blue*: High-speed Internet connection with bonded downstream channels
SEND	Scanning for an upstream (send) channel connection	Green: Non-bonded upstream channel is connected Blue*: High-speed Internet connection with bonded upstream channels
ONLINE	Scanning for an Internet connection	Green: Startup process completed

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Note ***Blue**** *indicates DOCSIS 3.0 operation (high-speed Internet access). This may not be available in all locations. Check with your service provider for availability in your area.*

Rear Panel

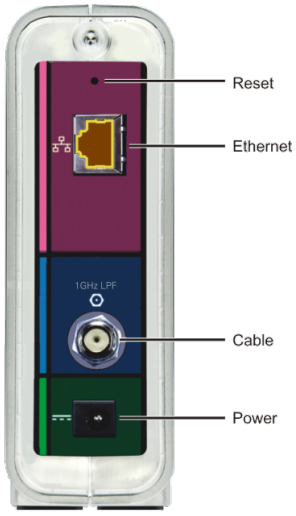

Figure 2 – SB6190 Rear View

Table 3: SB6190 Rear Panel Ports & Connectors

Port Name	Description
Reset Button	Can be used to reboot the cable modem or reset the cable modem settings. To reboot (or restart) the modem, press the indented Reset button once using the end of a paper clip or other small object with a narrow tip, and then release. To reset the cable modem configuration back to the factory default settings, press and hold the indented Reset button for 15 seconds using the end of a paper clip or other small object with a narrow tip, and then release.
ETHERNET	One-Gigabit Ethernet port for RJ-45 cable connections: Green - LED is ON - Indicates a device connection is detected Green - LED is Blinking - Indicates data traffic is in progress
CABLE	Coaxial cable connector

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Port Name	Description
⎓ POWER	12VDC Power line voltage **WARNING!** To avoid any damage to your SB6190, only use the power adapter provided in the box.

Cable Modem Label

The cable modem label is located on the bottom of the SB6190. It contains specific cable modem ID information that you may need when contacting your service provider or ARRIS Technical Support.

To receive Internet service, you may have to contact your service provider for assistance. You may need to provide the following information listed on the cable modem label:

- Cable modem model name (SB6190)
- Cable modem MAC address (HFC MAC ID)
- Cable modem serial number (S/N)

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3 Installing Your Cable Modem

This product is for indoor use only. Do not route the Ethernet cable(s) outside of the building. Exposure of the cables to lightning could create a safety hazard and damage the product.

Connect the SB6190 to Your Computer

Before installing your SB6190:

- Check with your service provider to ensure broadband cable service is available in your area.
- Choose a location in your home where your computer and SB6190 are preferably near existing cable and electrical wall outlets.

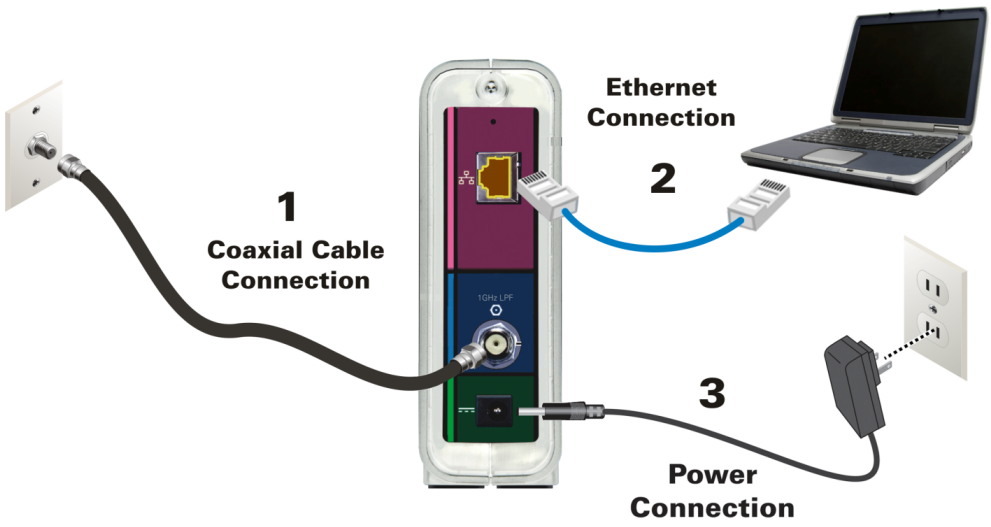

Figure 3 – SB6190 Connection Diagram

1. Check that a coaxial cable is already connected to a cable wall outlet or RF splitter (optional).
2. Connect the other end of the coaxial cable to the Cable connector on your SB6190.
   Use your hand to tighten the connectors to avoid damaging them.
3. Connect the Ethernet cable (included) to the Ethernet port on your SB6190.

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4. Connect the other end of the Ethernet cable to the **Ethernet** port on your computer.
5. Connect the power cord (included) to the **Power** port on your SB6190.
6. Plug the other end of the power cord into an electrical wall outlet.

   Note This automatically powers ON your cable modem.

Establish an Internet Connection

Although your computer may already be configured to automatically access the Internet, you should still perform the following cable modem connectivity test to verify that your network devices were connected properly.

1. Power ON the computer connected to your SB6190 if it is turned off, and then log in.
2. Contact your service provider to activate (provision) your SB6190. You may have to provide the **HFC MAC ID** listed on the modem label.

   Note Your service provider may allow for automatic activation which will automatically launch its own special website when you open a web browser.

3. After your SB6190 is activated, open a web browser (Internet Explorer, Google Chrome, Firefox, or Safari) on your computer.

   If the special website did not open, continue with step 4. If it opened, proceed to step 5.
4. Type a valid URL (www.surfboard.com) in the address bar and then press **Enter**.

   The ARRIS website should open. If it did not open, please contact your service provider for assistance.
5. Check that the **Power**, **Receive**, **Send**, and **Online** front panel LEDs on your SB6190 light up in sequential order. See Front Panel for additional LED status information.
   - If all four LEDs did not light up solid and you also do not have an Internet connection, you may have to contact your service provider to reactivate your SB6190 or check for signal issues.
   - If you still cannot connect to the Internet, your SB6190 may be defective. Please call ARRIS Technical Support for assistance.

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4 Monitoring Your Cable Modem and Connected Network

Use the SB6190 Web Manager to view and monitor the configuration settings and operational status of your SB6190. You may be able to change some network configuration settings.

Note: You may notice that some of the SB6190 Web Manager configuration settings may be blocked and cannot be modified. This may be due to some restrictions set up by your service provider to prevent unauthorized modifications to certain cable modem configuration parameters.

Start the Cable Modem Web Manager

1. Open any web browser on the computer connected to your SB6190.
2. In the Address bar, type **`http://192.168.100.1`** for the SB6190 Web Manager IP address, and then press Enter. The SB6190 Status screen displays:

Startup Procedure

Procedure	Status	Comment
Acquire Downstream Channel		Locked
Connectivity State	OK	Operational
Boot State	OK	Operational
Configuration File	OK	
Security	Disabled	Disabled
DOCSIS Network Access Enabled	Allowed	

Downstream Bonded Channels

Channel	Lock Status	Modulation	Channel ID	Frequency	Power	SNR	Corrected	Uncorrectables
1	Locked	256QAM	8	747.00 MHz	-5.40 dBmV	40.37 dB	258	0
2	Locked	256QAM	1	705.00 MHz	-5.10 dBmV	40.95 dB	81	0
3	Locked	256QAM	2	711.00 MHz	-5.00 dBmV	40.37 dB	154	0
4	Locked	256QAM	3	717.00 MHz	-5.20 dBmV	40.37 dB	154	0
5	Locked	256QAM	4	723.00 MHz	-5.20 dBmV	40.37 dB	747	0
6	Locked	256QAM	5	729.00 MHz	-5.50 dBmV	40.37 dB	759	0
7	Locked	256QAM	6	735.00 MHz	-5.40 dBmV	40.95 dB	571	0
8	Locked	256QAM	7	741.00 MHz	-5.40 dBmV	40.95 dB	546	0

Upstream Bonded Channels

Channel	Lock Status	US Channel Type	Channel ID	Symbol Rate	Frequency	Power
1	Locked	ATDMA	1	5120 kSym/s	30.70 MHz	47.75 dBmV
2	Locked	TDMA and ATDMA	4	2560 kSym/s	35.50 MHz	47.00 dBmV
3	Locked	ATDMA	3	5120 kSym/s	23.30 MHz	47.25 dBmV
4	Locked	TDMA and ATDMA	2	2560 kSym/s	18.50 MHz	47.00 dBmV

Current System Time: Tue Aug 04 22:02:16 2015

Figure 4 – SB6190 Status Screen

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Note *If you cannot access the HTML pages in the Modem Web Manager, please call or contact ARRIS Technical Support for assistance.*

Cable Modem Web Manager Screen Options

Menu Buttons

The SB6190 menu buttons are displayed along the top of the SB6190 Web Manager screen. To display a specific screen, click on the menu button.

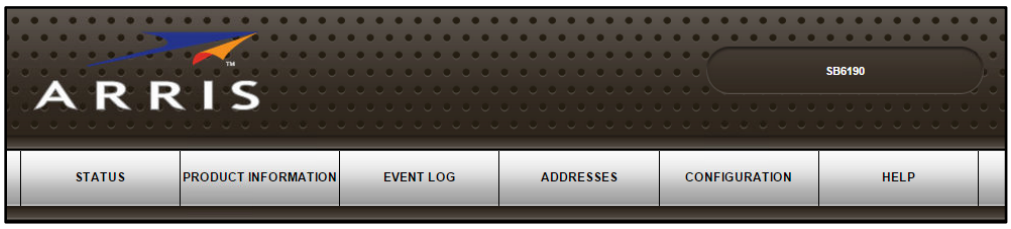

Figure 5 – SB6190 Web Manager Main Menu Buttons

Menu Links

The SB6190 menu links are displayed along the bottom of the SB6190 Web Manager screen. The menu links are similar to the menu tabs and serve as an alternative method for displaying the SB6190 Web Manager screens.

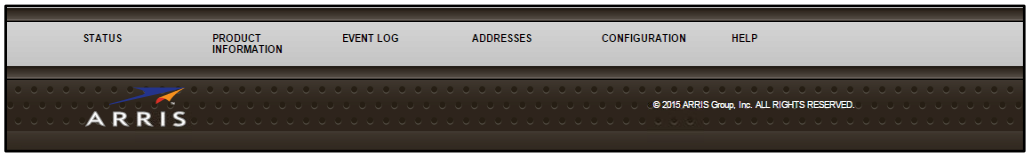

Figure 6 – SB6190 Web Manager Main Menu Links

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Table 4: SB6190 Web Manager Main Menu Options

Screen Option	Function
Status	Displays startup diagnostic information for the cable modem. Also provides the current network connection status of the cable modem.
Product Information	Provides general product and operational status information for the cable modem.
Event Log	Displays a listing of the time and actual events or alerts as they occur and are detected by the cable modem. This information may be useful to help diagnose and correct any problems that may occur with the cable modem.
Addresses	Provides network connection information for the cable modem and computer connected on your home network, including the cable modem serial number and MAC addresses.
Configuration	Provides the network connection frequency and channel ID information for the cable modem. Allows you to restart the cable modem. Allows you to reset the cable modem configuration back to the factory default settings.
Help	Provides a brief description for each web manager screen option.

Get Help

The Help feature provides a brief description for the SB6190 Web Manager screens.

- Click the Help menu button or link on the SB6190 Web Manager screen to open the SB6190 Help screen.

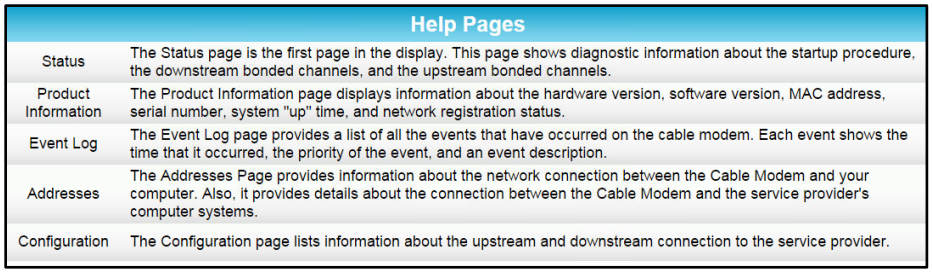
Help Pages
Status
The Status page is the first page in the display. This page shows diagnostic information about the startup procedure, the downstream bonded channels, and the upstream bonded channels.
Product Information
The Product Information page displays information about the hardware version, software version, MAC address, serial number, system "up" time, and network registration status.
Event Log
The Event Log page provides a list of all the events that have occurred on the cable modem. Each event shows the time that it occurred, the priority of the event, and an event description.
Addresses
The Addresses Page provides information about the network connection between the Cable Modem and your computer. Also, it provides details about the connection between the Cable Modem and the service provider's computer systems.
Configuration
The Configuration page lists information about the upstream and downstream connection to the service provider.

Figure 7 – SB6190 Help Screen

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View the Cable Modem Status

The SB6190 Status screen displays the current startup status of the SB6190 and the downstream and upstream bonded channel connections for receive and send data transmissions.

To open the Status screen:

1. Click the **Status** menu button or link on the SB6190 Web Manager screen (see Figure 8).
2. Click the **Refresh** button (**F5**) in your Web browser to reload the information on the screen.

Startup Procedure

Procedure	Status	Comment
Acquire Downstream Channel		Locked
Connectivity State	OK	Operational
Boot State	OK	Operational
Configuration File	OK	
Security	Disabled	Disabled
DOCSIS Network Access Enabled	Allowed	

Downstream Bonded Channels

Channel	Lock Status	Modulation	Channel ID	Frequency	Power	SNR	Corrected	Uncorrectables
1	Locked	256QAM	8	747.00 MHz	-5.40 dBmV	40.37 dB	258	0
2	Locked	256QAM	1	705.00 MHz	-5.10 dBmV	40.95 dB	81	0
3	Locked	256QAM	2	711.00 MHz	-5.00 dBmV	40.37 dB	154	0
4	Locked	256QAM	3	717.00 MHz	-5.20 dBmV	40.37 dB	154	0
5	Locked	256QAM	4	723.00 MHz	-5.20 dBmV	40.37 dB	747	0
6	Locked	256QAM	5	729.00 MHz	-5.50 dBmV	40.37 dB	759	0
7	Locked	256QAM	6	735.00 MHz	-5.40 dBmV	40.95 dB	571	0
8	Locked	256QAM	7	741.00 MHz	-5.40 dBmV	40.95 dB	546	0

Upstream Bonded Channels

Channel	Lock Status	US Channel Type	Channel ID	Symbol Rate	Frequency	Power
1	Locked	ATDMA	1	5120 kSym/s	30.70 MHz	47.75 dBmV
2	Locked	TDMA and ATDMA	4	2560 kSym/s	35.50 MHz	47.00 dBmV
3	Locked	ATDMA	3	5120 kSym/s	23.30 MHz	47.25 dBmV
4	Locked	TDMA and ATDMA	2	2560 kSym/s	18.50 MHz	47.00 dBmV

Current System Time: Tue Aug 04 22:02:16 2015

Figure 8 – SB6190 Status Screen

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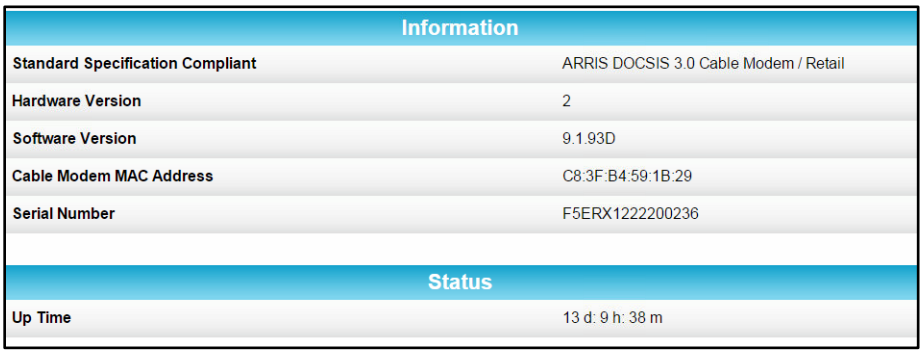
View the Cable Modem Product Information

The Product Information screen displays general product information for the SB6190 which includes the hardware and software (firmware) versions, serial number, MAC address, and the current network connection status.

To open the Product Information screen:

1. Click the **Product Information** menu button or link on the SB6190 Web Manager screen (see Figure 9).
2. Click the **Refresh** button (**F5**) in your web browser to reload the information on the screen.



Information	
Standard Specification Compliant	ARRIS DOCSIS 3.0 Cable Modem / Retail
Hardware Version	2
Software Version	9.1.93D
Cable Modem MAC Address	C8:3F:B4:59:1B:29
Serial Number	F5ERX1222200236
Status	
Up Time	13 d: 9 h: 38 m

Figure 9 – SB6190 Product Information Screen

View the Event Log

The SB6190 records a list of the activities, events, and alerts detected during operation.

Note: *This information may be useful, if you have to contact ARRIS Technical Support or your service provider to help diagnose and correct any problems that may occur with your cable modem.*

To open the Event Log screen:

1. Click the **Event Log** menu button or link on the SB6190 Web Manager screen. The Event Log screen displays.
2. Click **Refresh** (**F5**) in your Web browser to reload the information on the screen.

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Time	Priority	Description
Wed Jul 22 12:16:23 2015	4	SW upgrade Failed after download - SW File corruption
Wed Jul 22 12:16:23 2015	4	SW upgrade Failed before download - File not Present
Wed Jul 22 12:16:23 2015	4	SW upgrade Failed before download -TFTP Max Retry Exceeded
Wed Jul 22 12:18:39 2015	6	SW Download INIT - Via NMS
Wed Jul 22 12:18:39 2015	4	SW upgrade Failed after download - SW File corruption
Wed Jul 22 12:18:39 2015	4	SW upgrade Failed before download - File not Present
Wed Jul 22 12:18:39 2015	4	SW upgrade Failed before download -TFTP Max Retry Exceeded
Wed Jul 22 12:19:49 2015	6	SW Download INIT - Via NMS
Wed Jul 22 12:19:49 2015	4	SW upgrade Failed after download - SW File corruption
Wed Jul 22 12:19:49 2015	4	SW upgrade Failed before download - File not Present
Wed Jul 22 12:19:49 2015	4	SW upgrade Failed before download -TFTP Max Retry Exceeded
Thu Jan 01 00:00:56 1970	5	MDD message timeout;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.1;CM-VER=3.0;
Thu Jan 01 00:00:56 1970	5	Lost MDD Timeout;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.1;CM-VER=3.0;
Thu Jan 01 00:01:10 1970	3	No Ranging Response received - T3 time-out;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:30:b8:81:03:10;CM-QOS=1.1;CM-VER=3.0;
Wed Jul 22 13:23:17 2015	6	SW Download INIT - Via NMS
Wed Jul 22 13:26:41 2015	6	SW download Successful - Via NMS
Thu Jan 01 00:01:25 1970	5	MDD message timeout;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.1;CM-VER=3.0;
Thu Jan 01 00:01:26 1970	5	Lost MDD Timeout;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.1;CM-VER=3.0;
Wed Jul 22 13:29:35 2015	3	SYNC Timing Synchronization failure - Loss of Sync;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:30:b8:81:03:10;CM-QOS=1.1;CM-VER=3.0;
Thu Jul 23 00:32:24 2015	4	DHCP RENEW sent - No response for IPv6;CM-MAC=c8:3f:b4:59:1b:29;CMTS-MAC=00:30:b8:c6:3a:20;CM-QOS=1.1;CM-VER=3.0;
		Clear Log

Figure 10 – SB6190 Event Log Screen

View the Cable Modem Network Connection Information

The SB6190 Addresses screen provides network connection information between the SB6190 and your computer.

To open the Addresses screen:

1. Click the **Addresses** menu button or link on the SB6190 Web Manager screen.
2. Click **Refresh** (**F5**) in your Web browser to reload the information on the screen.

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Information

Item	Value
Serial Number	F5ERX1222200236
HFC MAC Address	c8:3f:b4:59:1b:29

Addresses

#	Known CPE MAC Address	Status
1	c8:3f:b4:59:1b:29	Self
2	64:31:50:18:8b:d4	Learned

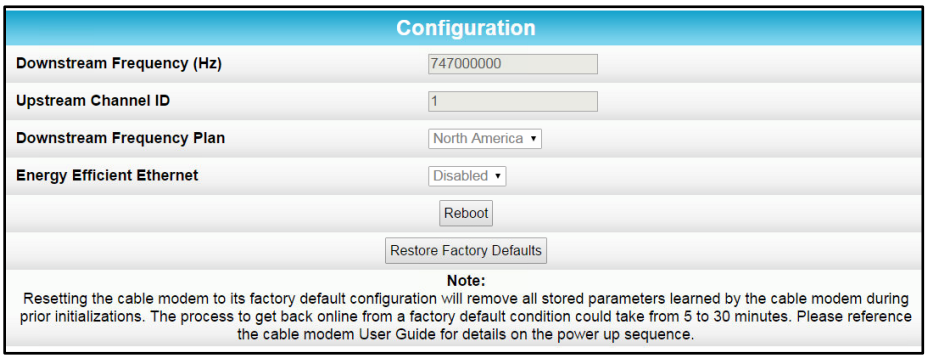
Figure 11 – SB6190 Addresses Screen

View the Cable Modem Configuration

The SB6190 Configuration screen displays the downstream frequency and upstream channel connection to the network. When the SB6190 successfully connects to the network, it stores the connection frequency to automatically connect whenever you have to log back onto the SB6190. You can use the Configuration screen to reboot the SB6190 (see Reboot Your Cable Modem) or reset the cable modem settings to the factory default configuration (see Reset the Factory Default Modem Settings).

To open the Configuration screen:

1. Click the **Configuration** menu button or link on the SB6190 Web Manager screen.



Configuration

Downstream Frequency (Hz)	747000000
Upstream Channel ID	1
Downstream Frequency Plan	North America
Energy Efficient Ethernet	Disabled
	Reboot
	Restore Factory Defaults

Note:
Resetting the cable modem to its factory default configuration will remove all stored parameters learned by the cable modem during prior initializations. The process to get back online from a factory default condition could take from 5 to 30 minutes. Please reference the cable modem User Guide for details on the power up sequence.

Figure 12 – SB6190 Configuration Screen

Note *The values on the SB6190 Configuration screen cannot be changed.*

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Restore the Factory Default Settings

You can reset the SB6190 configuration back to the default factory configuration. The process to restore the cable modem settings may take from five to 30 minutes to complete. During this process your network connection will be disabled.

WARNING! This action will delete your current cable modem configuration and any custom settings you may have created.

To open the Configuration screen:

1. Click the **Configuration** menu button or link on the SB6190 Main Menu bar. The Configuration screen displays.

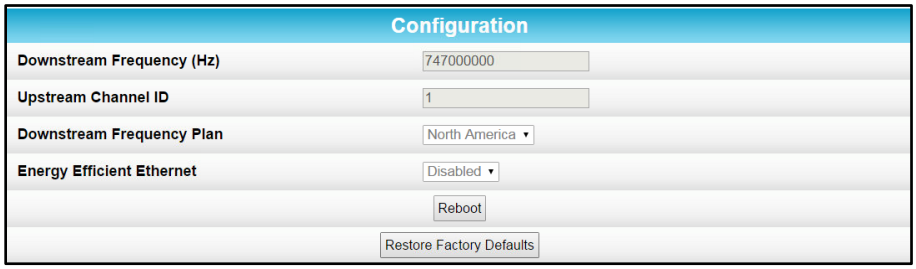

Figure 13 – SB6190 Configuration Screen-Restore Factory Defaults

2. Click **Restore Factory Defaults**.

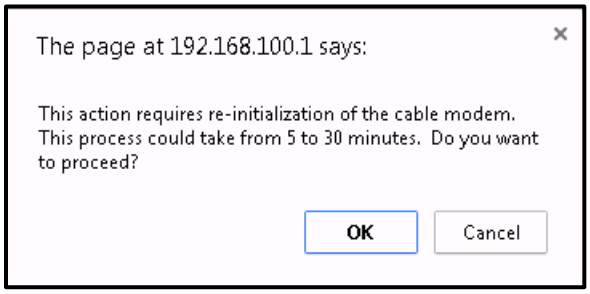
The page at 192.168.100.1 says:
This action requires re-initialization of the cable modem. This process could take from 5 to 30 minutes. Do you want to proceed?
OK
Cancel

Figure 14 – SB6190 Restore Factory Defaults Dialog Box

3. Click **OK**. The SB6190 Web Manager will automatically open when the Restore Factory Defaults process is complete.

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Restart the Cable Modem

To restart or reboot the SB6190:

1. Click the **Configuration** menu button or menu link on the SB6190 Main Menu bar. The Configuration screen displays.

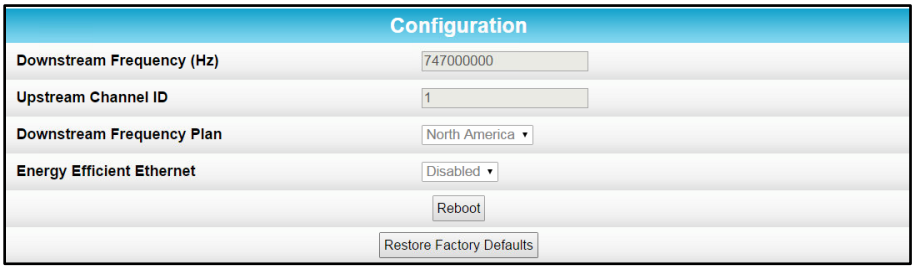

Figure 15 – SB6190 Configuration Screen- Restart Cable Modem

2. Click **Reboot**.

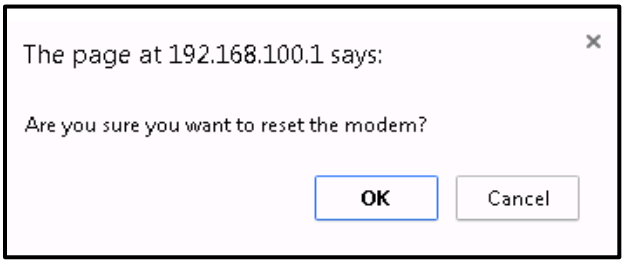

Figure 16 – SB6190 Reboot Dialog Box

3. Click **OK**. This message displays: **The device has been reset... RELOAD**.
4. Click **RELOAD** to log back into the SB6190 Web Manager.

Exit the SB6190 Web Manager

To log out and close the SB6190 Web Manager:

- Close the web browser window.

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A Troubleshooting Tips

If the solutions listed in this section do not solve your problem, contact your service provider for assistance.

Your service provider may ask for the status of the LEDs as described in Front Panel LED Icons and Error Conditions.

You may have to reset the SB6190 modem configuration to its original factory settings if the modem is not functioning properly.

Solutions

Table 5: Troubleshooting Solutions

Modem Problem	Possible Solution
POWER LED Icon is OFF	Check the power connection between the cable modem and electrical wall outlet. Check that the electrical wall outlet is working. Is the outlet controlled by a light switch? If so, disconnect the cable modem power cord and connect it to another electrical outlet that is not controlled by a light switch.
Cannot Send or Receive Data	Check each end of the coaxial cable connection on the modem and cable outlet. Hand tighten each connector, if necessary. Check the Ethernet cable to make sure it is properly connected to the modem and computer. On the front panel, check the status of the LED icons and refer to **Front Panel LED Icons and Error Conditions** to identify the problem. If you have cable television service, check your television to ensure your cable service is operating properly. If none of the above solutions resolves the problem, contact your service provider or call **ARRIS Technical Support**: **1-877-466-8646** for assistance.

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Modem Problem	Possible Solution
Cannot Access the Internet	Check that all cable and power connections on your cable modem and computer are properly connected. Check that the **Power** and **Online** LEDs on the front panel are lit up solid. If neither of the above solutions resolves the problem, contact your service provider for assistance.

Front Panel LED Icons and Error Conditions

The SB6190 front panel LED icons provide status information for the following error conditions:

Table 6: Front Panel LED Icons and Error Conditions

LED Icon	Status	If, During Startup:	If, During Normal Operation:
	Off	Modem is not properly plugged into the electrical outlet	Modem is unplugged
	Blinking	Downstream receive channel cannot be acquired	Downstream channel is lost
	Blinking	Upstream send channel cannot be acquired	Upstream channel is lost
	Blinking	IP registration is unsuccessful	IP registration is lost

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B Warranty Information

SURFboard SB6190 Cable Modem

ARRIS Enterprises, Inc. (“ARRIS”)

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